

**IN THE UNITED STATES DISTRICT COURT  
FOR THE EASTERN DISTRICT OF TEXAS  
SHERMAN DIVISION**

**INTELLECTUAL VENTURES I LLC AND  
INTELLECTUAL VENUTRES II, LLC,**

**Plaintiff,**

**vs.**

**AMERICAN AIRLINES, INC.,**

**Defendant.**

**Civil Action No. 4:24-cv-00980**

**JURY TRIAL**

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**DEFENDANT AMERICAN AIRLINES, INC.'S REPLY IN SUPPORT OF ITS PARTIAL  
MOTION TO DISMISS**

**TABLE OF CONTENTS**

I. THE COMPLAINT LACKS ANY FACTS THAT—EVEN IF ACCEPTED AS TRUE—SUGGEST AMERICAN USES NON-PUBLIC CLOUDS .....1

II. IV’S INDIRECT INFRINGEMENT ALLEGATIONS FAIL AS A MATTER OF LAW .....1

III. IV FAILED TO PLAUSIBLY PLEAD INFRINGEMENT OF THE ’844 PATENT .....2

IV. IV FAILED TO PLAUSIBLY PLEAD INFRINGEMENT OF THE ’772 PATENT .....4

V. THE CLAIMS OF THE ’582 PATENT ARE UNPATENTABLE UNDER THE CURRENT *ALICE* STANDARD .....5

    A. *Alice* Step 1: the claims are directed to an abstract idea .....5

    B. *Alice* Step 2: the claims do not contain an “inventive concept” .....6

VI. THE CLAIMS OF THE ’785 PATENT ARE UNPATENTABLE UNDER THE CURRENT *ALICE* STANDARD .....7

    A. *Alice* Step 1: the claims are directed to an abstract idea .....7

    B. *Alice* Step 2: the claims do not contain an “inventive concept” .....8

**TABLE OF AUTHORITIES**

|  | <b>Page(s)</b> |
|--|----------------|
| <b>CASES</b>   |                |
| <i>AI Visualize, Inc. v. Nuance Communications, Inc.</i> ,<br>97 F.4th 1371 (Fed. Cir. 2024) ..... | 7              |
| <i>Bell Atl. Corp. v. Twombly</i> ,<br>550 U.S. 544 (2007).....                                    | 1              |
| <i>Bot M8 LLC v. Sony Corp. of Am.</i> ,<br>4 F.4th 1342 (Fed. Cir. 2021) .....                    | 1, 2, 4        |
| <i>DSU Med. Corp. v. JMS Co.</i> ,<br>471 F.3d 1293 (Fed. Cir. 2006).....                          | 2              |
| <i>Elec. Power Group, LLC v. Alstom S.A.</i> ,<br>830 F.3d 1350 (Fed. Cir. 2016).....              | 8              |
| <i>Ottah v. Fiat Chrysler</i> ,<br>884 F.3d 1135 (Fed. Cir. 2018).....                             | 3              |
| <i>Synopsys, Inc. v. Mentor Graphics Corp.</i> ,<br>839 F.3d 1138 (Fed. Cir. 2016).....            | 6              |
| <i>Utto Inc. v. Metrotech Corp.</i> ,<br>119 F.4th 984 (Fed. Cir. Oct. 18, 2024).....              | 3              |
| <i>Warner-Lambert Co. v. Apotex Corp.</i> ,<br>316 F.3d 1348 (Fed. Cir. 2003).....                 | 2              |
| <b>OTHER AUTHORITIES</b>   |                |
| Rule 12(b)(6).....   | 1, 3           |

**I. The Complaint Lacks Any Facts That—Even if Accepted as True—Suggest American Uses Non-Public Clouds**

IV admits that American’s use of public clouds is authorized and not within the scope of this case. *E.g.*, Dkt. 1-9 at n.1. Thus, the only activity IV could possibly accuse is American’s use of *non*-public clouds. But IV failed to plead a single fact that hints at American’s use of these (or any) non-public clouds. Indeed, the single sentence IV points to in response (“American has announced cloud migration of legacy technology and efforts to modernize its mainframes and servers”) neither confirms nor suggests American’s use of non-public clouds. Dkt. 31 (“Resp.”) at 2. American’s cloud migration and modernization efforts may very well relate to its authorized use of public clouds, rather than the non-public clouds referenced in the Complaint. Because the Complaint is completely devoid of any facts that—even accepted as true—demonstrate American’s use of non-public clouds, Counts 1-3 and 6 fail to satisfy the Rule 12(b)(6) pleading standard and should be dismissed. *Bot M8 LLC v. Sony Corp. of Am.*, 4 F.4th 1342, 1352 (Fed. Cir. 2021); *Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 555 (2007); *see also JVC Kenwood Corp. v. Nero, Inc.*, 797 F.3d 1039, 1043–45 (Fed. Cir. 2015)<sup>1</sup> (“*without specific allegations and evidence showing use of unlicensed optical discs*, Nero has established a complete defense to all of JVC’s allegations of infringement under the Patents.”).

**II. IV’s Indirect Infringement Allegations Fail as a Matter of Law**

IV does not allege that American had pre-suit knowledge or was willfully blind to the existence of the patents-in-suit. Indeed, IV admits it failed to provide notice until *less than a day* before filing suit, which it does not dispute is insufficient under the law. Mot. at 6 (citing *Intell. Ventures I LLC v. Toshiba Corp.*, 66 F. Supp. 495, 500 (D. Del. 2014)).

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<sup>1</sup> Emphasis added unless otherwise stated.

IV also does not allege that American knowingly, and with specific intent, induced any third-party to infringe. Resp. at 3. Instead, IV alleges that American<sup>2</sup> intended its “partners, vendors, and customers” to *use* third-party cloud computing software, but this allegation is insufficient under the law. *See* Resp. at 3; *see also DSU Med. Corp. v. JMS Co.*, 471 F.3d 1293, 1305 (Fed. Cir. 2006) (“The mere knowledge of possible infringement by others does not amount to inducement; specific intent and action to induce infringement must be proven.”). Absent are any facts that—if taken as true—establish that American encouraged or intended these third parties to directly *infringe* the Cloud Computing Patents. *Warner-Lambert Co. v. Apotex Corp.*, 316 F.3d 1348, 1363 (Fed. Cir. 2003) (“[P]roof of actual intent to cause the acts which constitute the infringement is a necessary prerequisite to finding active inducement.”). Dismissal is therefore appropriate.

### **III. IV Failed to Plausibly Plead Infringement of the '844 Patent**

The Complaint lacks any evidence that the accused Docker cloud computing software practices the claimed leaf image limitations. Mot. at 13; Dkt. 1-9 at 6-33. Instead, IV’s “allegations are actually *inconsistent* with and contradict infringement” and are “insufficient to state a plausible claim.” *Bot M8*, 4 F.4th at 1354 (emphasis in original). For example, IV alleges that Docker software infringes the leaf image limitations because Docker documentation shows a file is modified by copying the file from a read-only layer to a writeable container layer. Mot. at 16; *see also* Dkt. 1-9 at 23 (“Docker includes a writable per runnable container layer for new data such as new *files* and including a copy on write strategy for changes made to the blocks of the root image.”); *see also id.* at 28 (illustrating the copy-on-write (CoW) strategy that indicates that “the

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<sup>2</sup> American assumes, for the purposes of this Reply, that IV’s reference to Southwest Airlines (Resp. at 3) was inadvertent and not a basis for IV’s allegations.

file is copied into that layer and modified”). But IV fails to acknowledge that claim 7 expressly requires that a leaf image includes only (a) additional blocks not previously contained in the root image (i.e., stored in the file on the read-only layer) and/or (b) blocks of the root image that are changed. Dkt. 1-2 (’844 Pat.), cl. 7. Therefore, copying an entire file (which comprises all image blocks, including those unchanged) from cannot infringe claim 7. *Id.* This contradiction is fatal to IV’s claims. *Bot M8*, 4 F.4th at 1354. As another example, IV alleges that, in Docker, “any changes the container makes to the *filesystem* are stored in this [writable container] layer, whereas any *files* that the container does not change do not get copied into this layer.” *See, e.g.*, Dkt. 1-9 at 24. The ’844 Patent, however, requires **block level** storage. Dkt. 1-2 (’844 Pat.) at 5:49-58, 7:59-62, 9:39. Those two things are fundamentally inconsistent. *Bot M8*, 4 F.4th at 1354.

IV’s claim construction arguments fair no better because American is not asking the Court to construe the claims. Resp. at 8. Instead, American is merely asking to the Court to consider the plain language, which (a) precludes a leaf image from including unchanged data blocks previously contained in the root image (in a file on the read-only layer) and (b) requires block level storage. Dkt. 1-2 (’844 Pat.), cl. 7, 5:49-58, 7:59-62, 9:39. Regardless, there is no categorical rule barring courts from considering claim language in motions to dismiss. *Utto Inc. v. Metrotech Corp.*, 119 F.4th 984, 992 (Fed. Cir. Oct. 18, 2024). For instance, “[w]here claims are construed based on intrinsic evidence alone, a decision on claim construction is not different in kind from the interpretation of other legal standards, which is proper and routine in ruling on a motion under Rule 12(b)(6).” *Id.* at 993. Indeed, “sometimes a claim’s meaning may be so clear on the only point that is ultimately material to deciding the dismissal motion that no additional process is needed.” *Id.* at 994.

On the contrary, IV advocates for a construction—without any support from the specification—that effectively renders the plain language of claim 7 meaningless. This is improper at the pleading stage and cannot save IV’s deficient allegations from dismissal. *Ottah v. Fiat Chrysler*, 884 F.3d 1135, 1141 (Fed. Cir. 2018) (confirming implausible claim construction arguments cannot avoid a motion to dismiss).

Finally, IV does not dispute that the leaf image limitations are the correct point of novelty. Resp. at 9-10. IV instead argues that leaf image limitations conflict with one another. Resp. at 9-10. IV’s argument is not only irrelevant, but it is incorrect. Both limitations (“said leaf images comprising additional blocks not previously contained in said root image” and “wherein said leaf images of respective compute nodes do not include blocks of said root image that are unchanged by respective compute notes”) describe the same point of novelty: that the leaf image does not include unchanged blocks from the root image. Dkt. 1-2 (’844 Pat.), claim 7. Regardless, IV failed to plead any facts showing American infringes the leaf image limitations under any pleading standard, so its claims should be dismissed. *Bot M8*, 4 F.4th at 1354.

#### **IV. IV Failed to Plausibly Plead Infringement of the ’772 Patent**

The ’772 Patent satisfies all three *Bot M8* factors, so IV Complaint must include materially more than just barebones allegations of infringement with uncorrelated supporting facts. IV does not address *Bot M8* factors 1 or 3, thereby conceding their applicability to the ’722 Patent.

IV’s only response to *Bot M8* factor 2 is to contend that American never “identifies the novel claim limitation,” because American identifies “one” alleged point of novelty, but it is unclear whether that limitation is the point of novelty, or some other limitation is the point of novelty. Resp. at 16-17. American identified three material limitations or “points of novelty” of claim 14 of the ’772 patent: (1) “updating live objects at client devices by using nodes in a routing network” (Dkt. 1-3 (’722 Pat.) at 23:63-65; 24:3-8; and 24:9-11); (2) “gateway device . . .

configured to . . . route the update message,” “node,” and “client device” (*id.* at 24:4-8); and (3) “identify a category of the update message based on the input source” (*id.* at 24:4-5). Resp. at 19. The ’772 Patent therefore meets all three of the *Bot M8* factors.

IV did not plead sufficient facts under *Bot M8* to show a plausible claim of infringement by American of claim 14 of the ’772 Patent. IV mischaracterizes its claim chart as including “an element-by-element analysis of American’s use of Kafka infringes at least claim 14 of the ’722 patent and cites factual support, including articles from the Apache Kafka website describing how Kafka works and other sources that describe Kafka in technical detail.” Resp. at 12. IV’s claim charts do not identify “American’s use of Kafka.” Instead, for each claim element, IV states: “On information and belief, the American Count 2 Systems and Services practice [the claimed step].” Dkt. 1-10 at 5-6 (step 14(a)); 18-19 (step 14(b)); 23-24 (step 14(c)); 29-30 (step 14(d)); and 32 (step 14(e)). The remainder of IV’s claim chart includes nothing more than screenshots showing generally how Kafka works, but lacks any connection to any accused American system to identify the component that meets the claimed limitation, e.g., where in the accused “American Count 2 System and Services” are the accused claimed processing device, the client device, the routing network, the live object, the object identifier, the node, the update message, the update data, and the gateway device at the routing network? IV’s infringement claims for the ’772 Patent should be dismissed. *Bot M8*, 4 F.4th at 1354.

## **V. The Claims of the ’582 Patent Are Unpatentable Under the Current *Alice* Standard**

### **A. *Alice* Step 1: the claims are directed to an abstract idea**

IV contends that the claims of the ’582 Patent are not directed to an abstract idea because the claims are directed to improvements in “data processing using parallelization, *i.e.*, using multiple computers or computing resources to perform a given task,” which “provide benefits to technical environments.” Resp. at 18. There is no support for IV’s contention.



The '582 Patent claims cannot be directed to “an improvement in data processing using parallelization” as IV contends because, as described in the '582 Patent itself, “parallelization” was already known in the prior art. This is evident from the description in the “Background of the Invention” section of the specification at 1:33-38 on which IV relies. Resp. at 18. The statement in the '582 Patent at 1:48-57, also relied on by IV, describes a “principal object of the present invention,” which is not describing any claim limitations. *Id.*

IV further contends that the statement at 2:30-38 of the '582 Patent specification demonstrates that the claims “provide benefits to technical environments.” Resp. at 18. This portion of the specification merely states that the “computer-executable process can be a sort process, a statistical analysis process, a report creating process, or a database query” and describes where the processor or plurality of processors are located, *i.e.*, in a mainframe, in parts of a single multiprocessor, or not in a mainframe. Dkt. 1-7 at 2:33-38. There are no technical improvements or benefits described.

IV further contradicts itself by contending that the '582 Patent claims are directed to “a specific way of improving the functioning of distributed execution of computer processes” (Resp. at 19-20) as opposed to “an improvement in data processing using parallelization.” Regardless, IV never addresses the claims themselves, so under either of IV’s descriptions the '582 Patent claims require functional results without describing how to achieve those results.

**B. *Alice* Step 2: the claims do not contain an “inventive concept”**

IV further contends that, even if directed to an abstract idea, the claims of the '582 Patent are directed to a patentable inventive concept. Resp. at 20-21. But IV cites nothing from the '582 patent specification to support its contention.

Instead, IV relies on *CosmoKey Sols. GmbH & Co. KG v. Duo Sec. LLC* to save the asserted claims. 15 F.4<sup>th</sup> 1091, 1098-1099 (Fed. Cir. 2021). The court in *CosmoKey*, however, relied on the

fact that the specification at issue “describe[d] how the *particular arrangement of steps* in claim 1 provides a technical improvement over conventional authentication methods.” IV identifies no such support in ’582 Patent specification (or elsewhere) that describes how the *particular arrangement of steps* in the claims provides a technical improvement over conventional methods.

## **VI. The Claims of the ’785 Patent Are Unpatentable Under the Current *Alice* Standard**

### **A. *Alice* Step 1: the claims are directed to an abstract idea**

IV contends that the claims of the ’785 Patent are not directed to an abstract idea because “[t]he claimed invention provides clear benefits over prior implementations.” Resp. at 23. However, benefits over prior art do not necessarily render an abstract idea patent-eligible. The invention must provide a technical solution to a technical problem, not merely a novel application of an abstract concept. See *Synopsys, Inc. v. Mentor Graphics Corp.*, 839 F.3d 1138, 1151 (Fed. Cir. 2016) (“[A] claim for a new abstract idea is still an abstract idea. The search for a § 101 inventive concept is thus distinct from demonstrating § 102 novelty.”) (emphasis in original).

IV cites *TecSec*, and *Packet Intel.*, to argue that claims solving problems unique to virtual networks have been found patent-eligible. Resp. at 24. However, unlike those cases, which addressed specific technical problems (e.g., enhanced security in *TecSec* and network monitoring in *Packet Intelligence*), the ’785 Patent focuses on generic network organization tasks like assigning virtual addresses and routing packets without addressing a specific technical issue such as security vulnerabilities or inefficiencies through non-conventional methods. Indeed, the ’785 Patent claims rely on conventional components (e.g., DNS, encapsulated packets) to implement the abstract idea of managing virtual addresses without disclosing any novel architecture or algorithm, and are abstract at Step 1. See, e.g., *AI Visualize, Inc. v. Nuance Communications, Inc.*, 97 F.4th 1371, 1378 (Fed. Cir. 2024) (finding claims directed to “obtaining, manipulating, and displaying data” using generic computer components ineligible for patent protection).

Even if the '785 Patent addresses problems unique to virtual networks, its claims are directed to the abstract idea of network resource management (e.g., assigning addresses and routing data). IV fails to demonstrate otherwise, relying instead on cases with different facts, emphasizing benefits over prior art (which is not the test under *Alice* Step 1), and focusing on American's "computer-implemented" claim language argument.

**B. *Alice* Step 2: the claims do not contain an "inventive concept"**

IV further contends that, even if directed to an abstract idea, the claims of the '785 Patent are directed to a patentable inventive concept. To the contrary, IV itself acknowledges and points to language in the specification that supports the notion that "the claimed invention [] could be implemented using then-current protocols and components." Resp. at 24. The Federal Circuit has "repeatedly held that such invocations of computers and networks that are not even arguably inventive are insufficient to pass the test of an inventive concept in the application of an abstract idea." *Elec. Power Group, LLC v. Alstom S.A.*, 830 F.3d 1350, 1355 (Fed. Cir. 2016) (internal citations omitted).

IV's reliance on *CosmoKey* is again misplaced, as there is no evidence that the '785 patent specification describes how the *particular arrangement of steps* in the claims provides a technical improvement over conventional methods. In fact, "[n]othing in the claims, understood in light of the specification, requires anything other than off-the-shelf, conventional computer, network, and display technology for gathering, sending, and presenting the desired information." *Elec. Power Group*, 830 F.3d at 1355.

\* \* \*

For the forgoing reasons, this Court should grant American's Partial Motion to Dismiss.

Dated: April 3, 2025

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**CERTIFICATE OF SERVICE**

I hereby certify that a true and correct copy of the above and foregoing document has been served on all counsel of record via the Court's ECF system on April 3, 2025.

/s/ John B. Campbell  
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